

FOREWORD

This publication provides facility planning criteria for use in computing quantitative facility requirements for Navy and Marine Corps Installations. Included are planning criteria and data applicable to those categories of facilities to which a planning factor or data can be applied in the computation of facility requirements.

Planning criteria contained in this publication are used in the preparation of Basic Facility Requirements Lists, evaluation of existing assets and the determination of specific facility requirements for shore facilities programs. These criteria apply equally to proposed and existing facilities. Their application to existing facilities provides a basis for planning against deficiencies or disposition of excess property as appropriate.

Chapter 1 includes the authority and responsibilities of the Naval Facilities Engineering Command for the preparation and publication of planning criteria for use in calculating facility requirements at Navy/Marine Corps installations and describes the use and applicability of the facility planning factors. Chapter 2, PLANNING FACTORS AND CRITERIA, contains a compilation of planning data and related space criteria developed by the Naval Facilities Engineering Command, furnished by systems commands, bureaus and offices of the Department of the Navy and issued by the Secretary of Defense. The material in Chapter 3 is arranged numerically by Category Groups and Basic Categories, in accordance with category codes for Naval Facility Assets, NAVFAC P-72.

Planning criteria are established as a guide and normally will be considered as maximum for facilities listed.

The system for updating this publication will minimize inconsistencies or contradictions with other applicable current directives. Users are invited to call to the attention of the Commander, Naval Facilities Engineering Command (Att'n: Code 2013) any criteria requiring updating, clarification, or revisions due to error.

This manual supersedes NAVFAC P-80 of Aug 1974, including Changes 1 through 5. The publication is certified as an official publication of this Command and has been reviewed and approved in accordance with Secretary of the Navy Instruction 5600.16.



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INTRODUCTION

1. **PURPOSE.** This Publication is intended to provide planning criteria for determining the requirements for shore based facilities needed to support Fleet and Marine Corps Operations. In addition, these criteria are used to evaluate the adequacy of existing facilities, to identify facility deficiencies or excesses, and to validate construction project submittals. Definition of the term "criteria" is given in Section II of this chapter.

2. **AUTHORITY.** The Navy Department facilities acquisition and improvement programs are guided by the Shore Facilities Planning and Programming System which has been established by OPNAV Instruction 11010.1 series. In this instruction, the Naval Facilities Engineering Command is directed to develop and maintain planning criteria for facilities requirements determination. Within the Navy Department, the OPNAV Instruction is implemented by NAVFACINST 11010.44 and MC0 11010.12 series.

3. **ORGANIZATION OF NAVFAC P-80.** Chapter I of this publication contains the introduction, general information, technical guidelines, guidance on criteria application and definitions of terms. Chapter II contains the specific criteria for various facility types. The information in Chapter II is in category code sequence corresponding to NAVFAC P-72, Category Codes for Navy Facilities Assets. Appendix A is a key word alphabetical index of facilities contained in this publication with identifying category code numbers. The page numbering system corresponds to the first three digits of a category group.

Certain criteria and planning guidance are applicable only to a limited number of Navy installations. This information is published as appendices under separate cover (NAVFAC P-80.1, .2, etc.) and have limited distribution. The appendices are listed in Table of Contents.

DEFINITION OF CRITERIA

For the purpose of this publication, criteria are data for establishing facility requirements and sizes. There are several purposes for this planning tool. One is to ensure that the existing and planned facilities are neither too small nor too large to accomplish mission objectives. Another purpose is to establish common planning standards within the Navy and other Services. The criteria information can be separated into several components as follows:

1. **DESCRIPTION OF FACILITY.** This provides the basic facility information:
 - a. Primary function
 - b. Relationship with operational components
 - c. Installation types requiring this facility

- d. Authorization requirements by higher headquarters
- e. List and relationships of internal functional elements
- f. References to other publications with more specific data

2. SPECIFIC PLANNING FACTORS. These are quantitative data on facilities needed to support specific mission objectives and tasks. The information is usually presented in one of the following forms:

- a. Tables, relating facility size to the number of ships, aircraft, people or equipment
- b. Formulas, relating size to workload or logistics support needs
- c. Fixed allowances, where a specific facility type is uniform throughout the Navy.

3. APPROXIMATE PLANNING FACTORS. There are a number of facilities for which the development of specific planning factors is not feasible or is impractical. The size of some of these facilities, however, will fall within a limited range which has been identified by engineering surveys. In these cases, the criteria will provide this range instead of specific planning factors and justification may be requested for requirements validation. If the requirements fall outside this range or if this publication provides no planning factors, a detailed justification is mandatory. See Section IV for guidelines.

LIMITATIONS AND COMPLIANCE

1. ENTITLEMENT. A fundamental aspect of these criteria is that an activity is not automatically "entitled" to the facility scope, or even the facility itself, simply because it is listed in this publication. In the majority of cases, these criteria represent maximum allowance. This does not mean that a facility has to meet the maximum P-80 allowances for a particular population range. A smaller facility at an individual location may be sufficient to meet the needs, based on professional analysis and judgment. Individual requirements must be tailored to suit the specific circumstances. The planner must analyze the need to accommodate a particular function and develop the requirements to most economically satisfy these needs. These requirements may or may not fit the maximum established by criteria.

2. CRITERIA AS A PLANNING GUIDE. The information in NAVFAC P-80 is a planning guide and not a regimented list of formulas. This philosophy requires the planner to be responsible for exercising professional judgment in determining requirements. As a matter of course, he must be prepared to provide appropriate justification data, for it is impossible to establish absolute facility planning factors which will perfectly fit every circumstance at every location. There are, however, certain limitations imposed by higher authorities which will be discussed in a subsequent paragraph.

Professional judgment is needed in the disposition of surplus facilities as the criteria and circumstances change. Revised criteria will affect the size of facilities and the evaluation of their use. The planner will need to follow the disposition guidelines explained in the Shore Facilities Planning Manual, NAVFACINST 1010.44 series.

3. COMMUNITY INTERFACES. A military installation is seldom situated in a location where there are no neighboring urban areas, communities or other military activities. Certain support facilities, especially in the morale, welfare and recreational field, have a general commonality, and the availability of such neighboring assets must be recognized in the planning process. To this end, a number of Environmental Adjustment Factors (EAF's) have been developed as modifiers for use in planning. These modifiers are described in more detail within the appropriate category code group.

4. ADHERENCE REQUIREMENTS. The extent to which these criteria may be regarded only as guides has limitations. These are imposed for several reasons. For example:

- a. To ensure adherence to operational safety criteria
- b. To ensure that certain OSD imposed maximum allowances are not exceeded
- c. To ensure adherence with operational security criteria

Guidance has been provided throughout the text. Where such limitations exist, variances from criteria will require a waiver. Approvals will be based on individual justification and may have to be obtained from the cognizant Systems Command, Bureau or OSD, as appropriate.

SPECIALIZED FACILITIES

For some facilities, it is impractical to develop specific planning factors because the requirements vary depending on individual location or the facility is one-of-a-kind type. In such cases, this publication will attempt to provide the facility description, but the planner must prepare detailed scope justification containing the following data:

- a. Functions to be accommodated
- b. Space needed for each function
- c. Number and organizational status of personnel
- d. Support space requirements
- e. Industrial engineering analysis of operations

There are two most commonly accepted methods of accomplishing a simplified industrial engineering analysis. One method is to prepare a scale drawing showing each piece of equipment, workbench, desk or other operational feature and their corresponding required working or access spaces. The drawing does not necessarily have to resemble any existing facility as its only purpose is to calculate the space requirement. Another method is to list in columnar form each of the above components along with their corresponding sizes and working or access space requirements. The totals obtained by either method plus any aisle spaces, if required, equal the total net square feet requirement for the function to be performed.

The approval of a requirement will depend upon the technical thoroughness of data. A justification based merely on existing facilities will not be acceptable, unless the existing operations and facilities are used to establish space need factors through one of the above methods.

REAL PROPERTY CATEGORIES

1. CATEGORY CODE STRUCTURE. The real property category code system provides uniform identification of all facilities. It is used in every phase of planning, programming, project processing, construction and inventory of real property assets. The basic concept was implemented by OSD and applies to all Services. Under the system, each facility type is given a name and a five digit code number. The names and numbers are provided in this publication and also in NAVFAC P-72, Category Codes for Navy Facility Assets. The planner must ensure the correct codification of each particular facility, since an error will cause delays in processing through the planning and programming system. The planner also should make every effort to use the published facility type name unless a more descriptive name improves clarity.

2. UNIT OF MEASURE. The category code system also assigns units of measure for each facility type. Each category code has a prime unit of measure; it is provided after each individual facility name in this publication. The correct prime unit of measure must be used in all planning documentation, project processing and real property inventory reporting since the planning data processing system will not transact incorrect units. Additional units of measure are provided to facilitate planning analysis. These are shown in NAVFAC P-72.

APPLICATION OF CRITERIA

The first step in calculating facility requirements is the assembly of basic planning information. The major items are activity mission and base loading. The planner must remember, however, that the Shore Facilities Planning System is designed to provide support for mid-range operational requirements. Therefore, it is important that input data reflect any scheduled changes.

1. MISSION ANALYSIS. A mission statement for an activity is a list of tasks or services it must perform. These must be associated with the facilities needed for mission performance. As an example, a starting point for mission analysis could be the identification of major functional element groups with associated facilities:

- a. Operational (Airfields, waterfront, communications)
- b. Logistics (Ammunition, fuel and consumables storage)
Industrial (Maintenance and overhaul facilities)
- d. Training (Schools, trainers, ranges)
- e. Personnel support (Housing, welfare, recreational)
- f. Medical (Hospitals, clinics)
- g. Administrative support

Mission analysis should also recognize the possible support provided by adjacent civilian communities and nearby military installations. Such interdependence may have a direct impact on facilities requirements in one of two ways:

Services provided (Tenants, other military installations)
Services received (Other military installations, community)

Each of these functional groups can be further subdivided down to the lowest denominator - the individual category code. At this point the planner has the data necessary to translate operational concepts into the framework for the basic facilities requirements section of planning documentation.

2. **BASE LOADING.** Base loading data is a list of specific numbers of ships, aircraft, personnel and equipment assigned to perform the tasks and services of an activity. The basic source of this information is the SFPS Base Loading Report issued annually by the Chief of Naval Operations, but this report is only a starting point. For requirements calculations, the base loading figures must recognize several other variables which may not be reflected in the basic Base Loading Report:

- a. Rotational ships and aircraft present at any time
- b. Homeported ship and aircraft deployment schedules
- c. Dependent population
- d. Retired personnel in the area

3. **OTHER DATA SOURCES.** The basic SFPS Base Loading Report information is sufficient to arrive at many of facilities requirements figures. In a number of cases, however, the calculations require more specialized input data. Following is a list of additional input data documents and their applications:

- a. Naval Air Training and Operating Procedures Standardization Program. (Runway lengths)
- b. OPNAVINST 3721.1, Air Traffic Control Facilities Manual (Air traffic control facilities, airfield lighting)
- c. OPNAVINST 3150.2, Authorized Photographic Laboratories Ashore (Self evident)
- d. Inactive Officer and Enlisted Strength by Unit and NRTC (BUPERS PAMI Report) (Reserve training facilities)
- e. OPNAVINST 4790.2, Naval Aviation Maintenance Program (Level of maintenance required)
- f. MC0 11010.12, Facilities Planning and Programming for Marine Corps Ground, Aviation, and Reserve Activities (Storage space requirements)
- g. NAVSEA Op5, Vol.1., Ammunition and Explosives Ashore (Explosive storage and safety distances)
- h. DOD Form 805, Storage Space Management Report and NAVSUP Form 605, Storage Unit Report (Warehousing requirements)
- i. BUMED Report 11010-1, Personnel Loading Plan (Personnel loading for medical facilities)
- j. DD Form 1377/1378, Family Housing Survey (Family and bachelor housing requirements)
- k. NAVLEX series 0101-102, 104 & 108, Handbook of Naval Shore Electronics Criteria (Communications facilities)

GENERAL INFORMATION

1. **OTHER PLANNING GUIDANCE DOCUMENTS.** This publication contains the basic planning information relating mission objectives to facility requirements. In addition to these two volumes, there are other documents and manuals which may

be of use to the installation planner:

- a. NAVFAC P-80.1, Airfield Capacity Handbook. This publication describes methodology for calculating the maximum number of air operations which can be accommodated by a runway.
- b. NAVFAC P-80.2, Naval Mobile Construction Battalion Facilities, which provides criteria for facilities required by deployed NMCB's.
- c. Airfield Safety Clearances. This publication is instrumental for air installation planning. It provides information on required airspace clearances, ground safety zones, minimum distances between airfield components and similar data.
- d. NAVFAC P-970, Planning in the Noise Environment. This is a joint services manual for planning facilities with respect to aircraft and other noise sources.
- e. NAVFAC P-272, Definitive Designs. This is a portfolio of standard drawings for representative facility types showing typical configurations, interior layouts and components.

2. USER INVOLVEMENT. The criteria in this publication do not remain static, but are subject to a continuous review and updating process. The users of this manual are often in the best position to identify deficiencies and suggest improvements. To that end, comments are solicited and may be submitted to NAVFACENGCOM Headquarters, Code 2013, with sufficient explanation for evaluation.